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APPLICATION NO.	F	ILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/787,063		02/25/2004	Darryl C. Bassani	BASSA.023A	9542	
20995	7590	02/22/2006	EXAMINER		INER	
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IRVINE, CA 92614				3748		
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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	10/787,063	BASSANI, DARRYL C.
Office Action Summary	Examiner	Art Unit
	Loren C. Edwards	3748
The MAILING DATE of this communication app Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on 2a) This action is FINAL. 2b) This Since this application is in condition for allowar closed in accordance with the practice under E	rears on the cover sheet with	S) OR THIRTY (30) DAYS, I. lely filed the mailing date of this communication. D (35 U.S.C. § 133). I, may reduce any
Disposition of Claims		
4) ☐ Claim(s) is/are pending in the applicatio 4a) Of the above claim(s) is/are withdraw 5) ☐ Claim(s) is/are allowed. 6) ☒ Claim(s) <u>1-22</u> is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/o	vn from consideration.	.•
Application Papers		
9) ☐ The specification is objected to by the Examine 10) ☑ The drawing(s) filed on 2/25/04 and 12/19/05 is Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) ☐ The oath or declaration is objected to by the Ex	$s/are: a) \square accepted or b) \square objective or b) objective or b) objection is required if the drawing(s) is objective or by accepted in the drawing(s) is objective or by acceptance or by accepted in the drawing or by accepted in the drawing of the drawing of the drawing or by accepted in the drawing of the $	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority document application from the International Bureau * See the attached detailed Office action for a list 	s have been received. s have been received in Applicati rity documents have been receive u (PCT Rule 17.2(a)).	ion No ed in this National Stage
Attachment(s) 1) M Notice of References Cited (PTO-892)	4)	· (PTO-413)
2) Notice of Preferences Orice (176 002) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 2/25/04.	Paper No(s)/Mail D	
S. Patent and Trademark Office		

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DETAILED ACTION

1. This action is response to the amendment filed on 12/19/05.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 2/25/04 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner is considering the information disclosure statement.

Drawings

3. The drawings were received on 12/19/05. These drawings are acceptable.

Claim Rejections - 35 USC § 103

- 4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 1. Claims 1-2, 5-6, 8-11, 13-15, and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (U.S. Pat. No. 5,636,515) in view of Coff (U.S. Pat. No. 5,944,322). Matsumoto discloses an exhaust header for collecting exhaust gases from an internal combustion engine (Col. 6, Line 49 Col. 7, Line 25; Fig. 15, No. 30₃), the exhaust header comprising: a plurality of metal flanges (Col. 6, Line 49 Col. 7, Line 25; Fig. 15, No. 32₃; Col. 3, Lines 15-18), each having a recessed, substantially circular (annular) sealing surface that is configured to circumscribe an exhaust port on an internal combustion engine (Col. 6, Line 49 Col. 7, Line 25; Fig. 15, No. 55-57), wherein at least a portion of the recessed sealing surface is exposed to an inside of the flange; a plurality of gaskets (Col. 6, Line 49 Col. 7, Line 25; Fig. 16, No. 58-60), each located in the recessed sealing surface and configured to

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form separate seals between each flange and the engine around the exhaust port; a plurality of head pipes (Col. 6, Line 49 - Col. 7, Line 25; Fig. 15, No. 34₁-36₁) in flow communication with the plurality of flanges and configured to route exhaust gases from the plurality of flanges; and a collector (Col. 6, Line 49 - Col. 7, Line 25; Fig. 15, No. 37) having a plurality of inlet ports connected to the plurality of head pipes. Matsumoto fails to specifically describe the material of the gaskets. Specifically, Matsumoto fails to disclose the gaskets being made of reinforced graphite with a melting temperature of at least 2000 degrees Fahrenheit. Coff teaches the material for a gasket being used in an internal combustion engine application being made of graphite (Column 4, Line 12). Coff explains how such a gasket would be economical to manufacture and capable of withstanding the prolonged exposure to high temperatures and thermal cyclings found in the environment of an internal combustion engine (Column 4, Lines 14-19). Coff also discloses a graphite gasket wherein the graphite protrudes above the mating surface (Fig. 5 t₁' and t₂'). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the graphite from the sealing ring of Coff in the Matsumoto manifold to enhance the compressive, heat resistant, and overall sealing characteristics of the ring. With regards to the method of assembly set forth in claims 19-20, and 22, such would be inherent to the modified Matsumoto device in that it involves all the same elements as claimed, and would inherently be assembled by the method claimed.

5. In regards to claim 5 and 14 Matsumoto does not disclose expressly a recess having a depth of approximately 0.1 inches. At the time the invention was made, it

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would have been an obvious matter of design choice to a person of ordinary skill in the art to set the depth of the recess to 0.1 inches because Applicant has not disclosed that a depth of 0.1 inches provides an advantage, is used for a particular purpose, or solves a sated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with a recess of another depth because it would have allowed for another sized gasket to fit in the recess.

- 6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto in view of Coff as applied to claim 2 above, and further in view of Itoh (U.S. Patent No. 6,256,990). Matsumoto discloses a flange with two bolt holes except the bolt holes are closed. The Itoh reference teaches a means for attaching a header or manifold to an engine, which uses an open bolt hole (Figure 1 Numbers 11b, and 14b). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the closed hole design of Matsumoto to an open bolt hole design in view of the teachings of Itoh for ease of placement and assembly in that open bolt design only requires loosening of the bolts instead of removal for servicing.
- 7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto as applied to claim 1 above, and further in view of Kaifel et al. (U.S. Pat. No. 6,254,142). The modified Matsumoto discloses the exhaust header of claim 1, but fails to specifically discuss the flange comprising a chamfered inside surface so as to provide a transition between an inner surface of the flange and an inside diameter of the head pipe. Kaifel discloses an exhaust manifold flange for an internal combustion engine that comprises a flange on the inside diameter of the flange where the exhaust port of the

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engine will transition into the inside diameter of the exhaust pipe (Figs. 7-8). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the chamfer as taught by Kaifel in the header of Matsumoto for the advantage of promoting a smooth laminar flow.

- 8. Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto in view of Coff as applied to claims 1 and 10 above, and further in view of Inman (U.S. Patent No. 5,148,675). The modified Matsumoto discloses an exhaust header with a recessed sealing surface but fails to disclose one with a rectangular shape. Inman teaches an exhaust manifold with a substantially rectangular shape. It would be obvious to one having ordinary skill in the art at the time the invention was made to make the shape of the exhaust passage of the header the same shape as the opening of the engine head's exhaust port that it mates to. Many engines have rectangular exhaust ports and to make the header's ports and sealing surfaces the same shape would minimize resistance between the two.
- 9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto in view of Coff as applied to claim 11/10 above, and further in view of Adams (U.S. Patent No. 4,968,066). The modified Matsumoto discloses a metallic flange for use with a header but does not disclose the specific material. Adams teaches a similar flange made of iron, which can be economically produced (Column 3, Lines 56-59). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the flange of Matsumoto out of iron in view of Adams to reduce the cost of materials.

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10. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto in view of Coff as applied to claim 10 above, and further in view of Brooks (U.S. Patent No. 3,875,744). The modified Matsumoto discloses an apparatus configured to attach an exhaust pipe to an engine head to form an exhaust header but lacks a cross-sectional area which varies, or which increases. Brooks teaches an exhaust system which has a cross sectional area that both varies and increases as it moves away from the engine (Fig. 1-3). It would have been obvious to one having ordinary skill in the art at the time of the invention to make a flange that had a cross sectional area that varied and increased in order to reduce the back pressure of an exhaust system.

Response to Arguments

11. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Loren C. Edwards whose telephone number is (571) 272-2765. The examiner can normally be reached on M-TH 5:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571)272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700